



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D3391-023
Job Sheet 183836



Part No: D3391-023

Job Qty: 1 ea

Part Name: Mid Tube Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/27/18

Job Tracking No:

Due Date: 11/8/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV J SHEET 2 and 7 IPP A 05.10.20 New Issue KJ/EC IPP B IPP C 07.03.20 rev F dwg EC IPP D 07.03.28 re-format EC IPP E 07.10.31 ecn 1053P EC IPP Rev:F ECN 1056 07-11-13 DD verified by: EC IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP Rev:J add in seq 140 expire date &b# sikaflex DD 10.02.17 verified by:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		11/8/18	0.00	0.00	Start Up Skidtubes-1		IV
100	Skidtubes	1 pcs		11/8/18	0.88	2.11	Skidtubes-4		IV DAS
110	QC	1 pcs		11/8/18	0.00	0.00	QC5		38
120	HandFinish	1 pcs		11/8/18	0.00	0.38	HandFinish1		D.R. 18/10/13
130	QC	1 pcs		11/8/18	0.00	0.00	QC7-2		MG
140	Skidtubes	1 pcs		11/8/18	0.00	2.11	Skidtubes-4		MG
150	QC	1 pcs		11/8/18	0.00	0.00	QC5		8/8
160	Skidtubes	1 pcs		11/8/18	0.00	2.11	Skidtubes-4		8/8 DAS IV
170	QC	1 pcs		11/8/18	0.00	0.00	QC10		38 DAS
180	QC	1 pcs		11/8/18	0.00	0.00	QC5		9-89 38
185	HandFinish	1 pcs		11/8/18	0.00	0.38	HandFinish2		D.R. 18/10/17
191	SprayPaint	1 pcs		11/8/18	0.00	0.91	Spray Paint		NA
192	Outsource	1 pcs		11/8/18			ATE003-VC		CG 18-10-25
193	Packaging	1 pcs		11/8/18	0.00	0.00	Packaging2		18 OCT 26 2018
200	QC	1 pcs		11/8/18	0.00	0.00	QC14		18-10-31
230	HandFinish	1 pcs		11/8/18	0.00	0.38	HandFinish4		18-10-31 DAS
240	QC	1 pcs		11/8/18	0.00	0.00	QC5	DAS	NOV 01 2018 68
250	Packaging	1 pcs		11/8/18	0.00	0.00	Packaging3-1	69	NOV 05 2018
260	QC21-SA	1 Ea		11/8/18	0.00	0.00	QC21	9-89	NOV 05 2018

Part Op 100 - 1-Cut tube to finish length as per Dwg D3391 2-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1
Descriptions: fwd saddle hole on one side only as per Dwg D3391 3-Open aft saddles and GHW holes to Ø0.4375" except for fwd saddle
holes 4-Remove .030" from Fwd indexing Ridge as per Dwg D3391 5-Remove indexing ridge on Fwd & Aft end of
skidtube as per Dwg D3391 6-Deburr, scibe batch # on aft end. 7- Locate D3391-021 in D3391-023 at 9:00" (see view
E-F) 8- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149
locating from previously drill .188" dia hole, using t-pins and clicos to ensure perfect allingment, open up previously tranfer
drilled pilot holes in D3391-023/-021 using drill press. ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to
0.500" as per ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499". D3391-021
BATCH: 9- Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.375" holes with paint marker,
DO NOT DRILL HOLES #3-19-20 FROM FWD END OF JIG Locating from two fwd wearplate holes in D3391-023
drill remaining 6 wearplate holes in D3391-021 using DT8937 10- Open wearplate holes of D3391-023 assembly detail
section Q-Q to Ø0.375" (10 holes) as per Dwg D3391 Open wearplate holes of D3391-023 assembly detail section H-H to

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval																	
OP-K1 AEROSPACE Container No: S115133 Part: D3391 - 023 Job No: 183836 Serial No/Batch: S115133 Revision: J Inspector: J Exp Date: _____ Instructions: Various STC's Date: 10/02/18 1410 Avenue Street Hamilton, ON K6A 1K7 CANADA TEL: 1 813 632-5200 Email: sales@dartaero.com www.dartaerospace.com						Disposition		Completed By															
								Lead hand / Supervisor Approval Verification															
								QC / QA Coordinator Approval															
FAULT CATEGORY <table style="width:100%;"> <tr> <td style="width:33%;"> ☐ Env ☐ Equip ☐ Handling ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified </td> <td style="width:33%;"> ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due </td> <td style="width:33%;"> ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes </td> </tr> </table>								☐ Env ☐ Equip ☐ Handling ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified	☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due	☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes													
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			☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence																		
OTHER : _____																							

Ø0.297" (20 holes) as per Dwg D3391 Deburr and blow out all chips from inside tube, scribe

140 - 1-Open float bag holes as per dwg 2-C'sink float bag holes as per dwg 3- Prepare tube for welding 4-Bond web in place as per Dwg D3391 & QSI 015. Adhere for 12 hours) A/R Sikaflex exp: 19-03-06 batch#: M138943

NOTE:ENSURE WEB IS INSERTED IN AFT END OF TUBE

160 - 1-Weld crossbolt spacer as per dwg D3391 & QSI 004 2-grind weld flush AK 138673

185 - Re-alodine

191 - PRIME AS PER DWG AND QSI005 4.2.1.3.3 PRIMER BATCH: _____ PAINT AS PER DWG AND QSI005 4.2.2.4 PAINT: _____

230 - 1-Install Inserts as per Dwg

192: outsource: P00411452

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2500-1-100	Skidtube Extrusion	1 Ea (1 ea)	90-Start up Operation	<u>006187</u>
D3389-1	Web	1 Ea (1 ea)	140-Skidtubes	<u>FL63253</u>
D3681-1	Spacer	5 Ea (5 ea)	160-Skidtubes	<u>5062828</u>
ALS4-1032-130	Rivnut	20 Ea (20 ea)	230-HandFinish	<u>5103210</u>
D3591-1	Bushing	2 Ea (2 ea)	230-HandFinish	<u>5007279</u>
				<u>5122431</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2500-1-100	1	40	0
140-Skidtubes	D3389-1	1	15	0
160-Skidtubes	D3681-1	5	202	0
230-HandFinish	ALS4-1032-130	20	12,106	0
	D3591-1	2	11	0

Part Specifications

Specifications could not be found.

Plex 9/27/18 1:21 PM Dart.lajeunesse.marie

DQA: _____ Date: _____

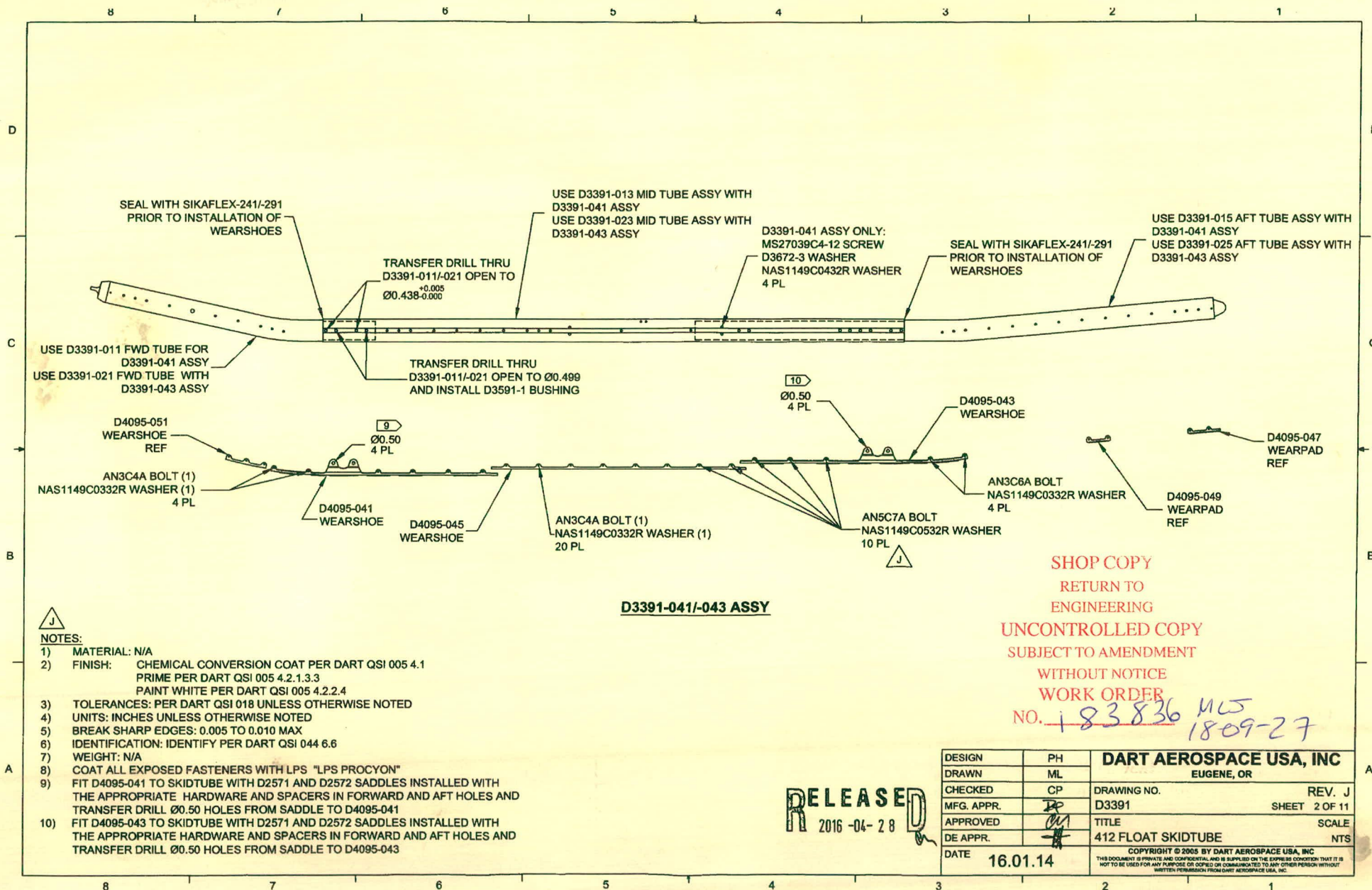


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
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Root Cause		FAULT CATEGORY																																																													
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	No Re-verification ☐	Operator ☐	Offset/Setup ☐	Supplier ☐	Training ☐	Use for Testing ☐	Poor Information ☐	Rushing ☐	Product Improvement ☐	Process Improvement ☐	Manufacturing Process ☐	Past Due ☐	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
OTHER :																																																															





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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041452**

Supplier: ATE003-VC
Atelier Debosselage
358 Principale
Calumet
QC
J0V 1B0 Canada
Phone: 819 242 5633

PO No: PO041452
PO Date: 10/25/18
Due Date: 10/30/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	183837	D3391-023	Mid Tube Assembly : Various STC's	Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	183839			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	183840			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	176069			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	183836			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	183838			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	176042			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
	183841			Firmed	-	10/30/18	1 pcs	0 pcs	1 pcs	\$125.00/pcs	\$125.00
Sub Total:							8	0	8		\$1,000.00

Grand Total: \$1,000.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

